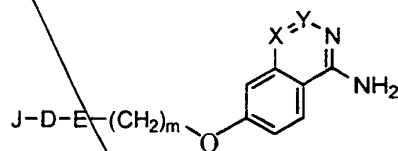


CLAIMS

1. Serine protease inhibitor having the formula (I),



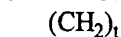
(I)

in which

J is H, R¹, R¹-O-C(O)-, R¹-C(O)-, R¹-SO₂-, R³OOC-(CHR²)_p-,
(R^{2a}, R^{2b})N-CO-(CHR²)_p- or Het-CO-(CHR²)_p-;

D is an amino-acid of the formula -NH-CHR¹-C(O)-,
-NR⁴-CH[(CH₂)_qC(O)OR¹]-C(O)-, -NR⁴-CH[(CH₂)_qC(O)N(R^{2a}, R^{2b})]-C(O)-,
-NR⁴-CH[(CH₂)_qC(O)Het]-C(O)-, D-1-Tiq, D-3-Tiq, D-Atc, Aic, D-1-Piq or
D-3-Piq;

E is -NR²-CH₂- or the fragment



-N-CH-, optionally substituted with (1-6C)alkyl, (1-6C)alkoxy or benzyloxy;

R¹ is selected from (1-12C)alkyl, (2-12C)alkenyl, (2-12C)alkynyl, (3-12C)cycloalkyl
and (3-12C)cycloalkyl(1-6C)alkylene, which groups may optionally be
substituted with (3-12C)cycloalkyl, (1-6C)alkoxy, oxo, OH, CF₃ or halogen, and
from (6-14C)aryl, (7-15C)aralkyl, (8-16C)aralkenyl and (14-20C)(bisaryl)alkyl,
whereby the aryl groups may optionally be substituted with (1-6C)alkyl,
(3-12C)cycloalkyl, (1-6C)alkoxy, OH, CF₃ or halogen;

R², R^{2a} and R^{2b} are each independently selected from H, (1-8C)alkyl, (3-8C)alkenyl,
(3-8C)alkynyl, (3-8C)cycloalkyl and (3-6C)cycloalkyl(1-4C)alkylene, which can
each be optionally substituted with (3-6C)cycloalkyl, (1-6C)alkoxy, CF₃ or
halogen, and from (6-14C)aryl and (7-15C)aralkyl whereby the aryl groups may
optionally be substituted with (1-6C)alkyl, (3-6C)cycloalkyl, (1-6C)alkoxy, CF₃ or
halogen;

R³ is as defined for R² or Het-(1-6C)alkyl;

R⁴ is H or (1-3C)alkyl;

X and Y are CH or N with the proviso that they are not both N;

Het is a 4-, 5- or 6-membered heterocycle containing one or more heteroatoms
selected from O, N and S;

m is 1 or 2;

p is 1, 2 or 3;

q is 1, 2 or 3;

t is 2, 3 or 4;
 or a prodrug;
 and/or a pharmaceutically acceptable addition salt and/or solvate thereof.

2. Serine protease inhibitor according to claim 1, wherein
 m is 2; X is CH and Y is CH.

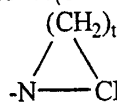
3. Serine protease inhibitor according to claim 2, wherein
 J is H, R¹, R³-SO₂-, R³OOC-(CHR²)_p-, (R^{2a}, R^{2b})N-CO-(CHR²)_p- or Het-CO-(CHR²)_p-;

10 D is an amino-acid of the formula -NH-CHR¹-C(O)-,

-NR⁴-CH[(CH₂)_qC(O)OR¹]-C(O)-, -NR⁴-CH[(CH₂)_qC(O)N(R^{2a}, R^{2b})]-C(O)-,

-NR⁴-CH[(CH₂)_qC(O)Het]-C(O)-;

E is -N(3-6C)cycloalkyl-CH₂- or the fragment

-N-CH-, optionally substituted with (1-6C)alkyl or (1-6C)alkoxy;

15 R¹ is selected from (1-12C)alkyl, (3-12C)cycloalkyl and
 (3-12C)cycloalkyl(1-6C)alkylene, which groups may optionally be substituted
 with (3-12C)cycloalkyl, (1-6C)alkoxy or oxo, and from (6-14C)aryl,
 (7-15C)aralkyl and (14-20C)(bisaryl)alkyl, whereby the aryl groups may
 optionally be substituted with (1-6C)alkyl, (3-12C)cycloalkyl, (1-6C)alkoxy, OH,
 20 CF₃ or halogen;

R² is H;

R^{2a} and R^{2b} are each independently selected from H, (1-8C)alkyl, (3-8C)cycloalkyl
 and (3-6C)cycloalkyl(1-4C)alkylene, which can each be optionally substituted
 with (3-6C)cycloalkyl or (1-6C)alkoxy and from (6-14C)aryl and (7-15C)aralkyl
 25 whereby the aryl groups may optionally be substituted with (1-6C)alkyl,
 (3-6C)cycloalkyl, (1-6C)alkoxy, CF₃ or halogen;

R³ is selected from H, (1-8C)alkyl, (3-8C)cycloalkyl and
 (3-6C)cycloalkyl(1-4C)alkylene, which can each be optionally substituted with
 (3-6C)cycloalkyl or (1-6C)alkoxy, and from (7-15C)aralkyl whereby the aryl
 30 groups may optionally be substituted with (1-6C)alkyl, (3-6C)cycloalkyl,
 (1-6C)alkoxy, CF₃ or halogen and from Het-(1-6C)alkyl;

p is 1;

q is 2;

t is 3 or 4.

35 4. Serine protease inhibitor according to claim 3, wherein

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D is an amino-acid of the formula $\text{-NH-CHR}^1\text{-C(O)-}$ or glutamyl [or an (1-6C)alkylester thereof];

R¹ is selected from (3-12C)cycloalkyl and (3-12C)cycloalkyl(1-6C)alkylene, which groups may optionally be substituted with (3-12C)cycloalkyl or (1-6C)alkoxy, and from (6-14C)aryl, (7-15C)aralkyl and (14-20C)(bisaryl)alkyl, whereby the aryl groups may optionally be substituted with (1-6C)alkyl, (3-12C)cycloalkyl, (1-6C)alkoxy or halogen; and

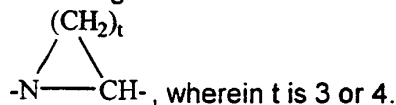
R³ is selected from (1-8C)alkyl and (3-8C)cycloalkyl, which can each be optionally substituted with (3-6C)cycloalkyl or (1-6C)alkoxy, and from (7-15C)aralkyl whereby the aryl groups may optionally be substituted with (1-6C)alkyl, (3-6C)cycloalkyl, (1-6C)alkoxy, CF₃ or halogen and from Het-(1-6C)alkyl.

5. Serine protease inhibitor according to claim 4, wherein

J is $\text{-CH}_2\text{COO(1-6C)alkyl}$, (3-8C)cycloalkyl, $\text{-SO}_2\text{-10-camphor}$, $\text{-CH}_2\text{CONHphenyl}$ or $\text{-CH}_2\text{CONH(3-8C)cycloalkyl}$;

D is D-cyclohexylalaninyl, D-phenylalaninyl, D-diphenylalaninyl or glutamyl [or an (1-6C)alkylester thereof]; and

E is the fragment



6. A pharmaceutical composition comprising the serine protease inhibitor of any one of claims 1 to 5 and pharmaceutically suitable auxiliaries.

7. The serine protease inhibitor of any one of claims 1 to 5 for use in therapy.

8. Use of the serine protease inhibitor of any one of claims 1 to 5 for the manufacture of a medicament for treating or preventing thrombin-mediated and thrombin-associated diseases.

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